OPERATING MANUAL AND PARTS LIST MODEL GR2540 COMPRESSOR



Because quality work demands quality tools



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This manual contains important safety and operating instructions that must be followed. You must read and understand this manual before operating this compressor. Failure to follow all instructions can result in serious injury to operator and bystanders, or damage to compressor and attachments.

SAFETY SYMBOLS

The safety symbols used on the compressor's safety labels and in this manual provide an important visual reminder of basic safety rules, and the hazards that may arise if all safety and operating instructions are not followed. Make sure you understand the meaning of each of these symbols, and protect yourself and others by obeying all safety and operating instructions on warning labels and in this manual.

SYMBOL	DESCRIPTION
	SAFETY ALERT SYMBOL Calls attention to important safety information and provides an alert to potential safety hazards.
	HOT SURFACE HAZARD Hot surfaces can cause serious burn injury if touched. Let unit cool before handling.
	MOVING PARTS/ENTANGLEMENT HAZARD Contact with moving parts can cause serious injury. Keep guards and protective covers in place.
	INHALATION HAZARD Compressed air can contain carbon monoxide or other harmful gases. Do not use compressor to provide air for breathing.
	BURST HAZARD Over-pressurization caused by tampering with controls can cause serious injury or death from explosion.
	SHOCK HAZARD Contact with live electrical components can cause shock, serious injury, or death from electrocution. Use a properly grounded power source.
	EXPLOSION HAZARD Electrical sparks from unit can ignite flammable liquids and vapors. Use compressor in a well ventilated area free from explosive vapors.
	FIRE HAZARD Keep compressor 20' feet away from spray area when spraying flammable materials. Operate unit away from obstructions that could block ventilation.
	HIGH PRESSURE AIR HAZARD Release of pressurized air can cause serious injury if directed against body. Never use air pressure higher than recommended for tool or accessory.

SAFETY INSTRUCTIONS

WEAR ANSI Z87.1 APPROVED EYE PROTECTION - Always wear approved eye protection equipment that provides both front and side eye protection when operating or servicing the compressor.

DO NOT EXCEED MAXIMUM RECOMMENDED OPERATING PRESSURE OF AIR-POWERED TOOLS OR OTHER EQUIPMENT BEING USED - Spray guns and other low to medium pressure equipment can burst, causing serious injury to user and bystanders. Read and follow all manufacturers' pressure recommendations before connecting tools, sprayers, or other equipment to compressor. Use extreme care when using the compressor with tires, inner tubes, and other inflatables, as excessive pressure or rapid inflation can cause these items to burst.

CONNECT COMPRESSOR POWER CORD ONLY TO A PROPERLY GROUNDED POWER OUTLET USING AN APPROVED 3-PRONG GROUNDED EXTENSION CORD - Using an improperly grounded outlet or extension cord can result in shock or electrocution. Electrical wiring, outlets, extension cords, and current protection devices such as fuses and circuit breakers must meet local electrical and safety codes, as well the requirements of the National Electrical Code. A ground-fault circuit interrupter (GFCI) device may be required for compressor use outdoors, in garages, and in damp locations.

USE AN EXTENSION CORD THAT IS PROPERLY SIZED - Using an undersize cord can result in overheating of cord and short-circuiting, resulting in fire and damage to property. Use a UL-listed extension cord rated to safely handle the power requirements of the compressor.

DO NOT OPERATE IF FLAMMABLE VAPORS ARE PRESENT - The electric motor and pressure switch may produce sparks, which can ignite flammable vapors and cause fire or explosion. Flammable vapors from gasoline, solvents, adhesives, and other chemicals may drift some distance from the source, or build up in low areas. Operate the compressor only in well-ventilated areas that are free of flammable vapors.

DO NOT OPERATE IN THE RAIN OR IN WET AREAS - Operating an electric compressor in wet conditions can result in severe shock or electrocution. Operate only in dry conditions, using a properly grounded power outlet that conforms to local and national electrical code requirements. An outlet with ground-fault circuit interrupter (GFCI) protection is recommended for use outdoors or in garages, and may be required by local electrical codes.

DO NOT TOUCH COMPRESSOR HEAD OR TUBING WHEN UNIT IS OPERATING - Normal compressor operation will cause tubing and other components to become extremely hot. Contact with hot parts can cause serious burns. Allow unit to cool before handling or performing service.

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SAFETY INSTRUCTIONS

NEVER DIRECT COMPRESSED AIR AT ANY BODY PARTS - Compressed air can penetrate skin, or force dirt and debris into eyes, causing serious injury. Never place hands or body parts over the air discharge opening of a pressurized nozzle or fitting. Use care when connecting and disconnecting air hose to attachments, pneumatic tools, and other air-powered devices.

KEEP FLAMMABLE SPRAYS AWAY FROM SPARKS AND OTHER SOURCES OF IGNITION - Spraying

flammable liquids such as oil-base paints, sealers, and finishes near sparks, open flame, and other sources of ignition such as pilot lights, appliances, water heaters, furnaces, etc. can result in explosion and fire. Turn off all pilot lights, and avoid using electrical appliances, heaters, torches, and other equipment that may produce sparks or flame. Keep compressor as far away from spraying area as possible by using an air hose of sufficient length to prevent spray mist from being ignited by electrical sparks from compressor operation.

DO NOT TAMPER WITH COMPRESSOR PRESSURE SWITCH SETTINGS - The pressure switch settings set at the factory provide the maximum safe operating pressure recommended for this compressor. Altering these settings can result in over-pressurization, risk of tank, hose, and pneumatic equipment failure, and serious injury to operator and bystanders.

USE AIR HOSE RATED FOR 150 PSI OR GREATER - Air hose must be rated to safely handle maximum compressor pressure. Air hose that does not meet minimum pressure requirements can rupture, releasing high pressure air. Replace a cracked or leaking air hose immediately to prevent serious injury from contact with high pressure air streams.

DISCONNECT POWER CORD AND RELIEVE TANK PRESSURE BEFORE SERVICING UNIT – Never perform service or maintenance on any part of the compressor while the unit is pressurized or connected to power. The compressor can start automatically, causing serious injury. Open tank drains slowly to allow air to escape, and keep clear of air stream.

DO NOT MODIFY COMPRESSOR – Altering the compressor in any way may create a serious safety hazard, and result in serious injury to operator and bystanders. If compressor does not work properly, stop using unit immediately. Return unit to an authorized service center for repairs if problem cannot be remedied by following troubleshooting instructions in this manual.

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SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Motor	
Horsepower	2.5 (Peak)
Voltage	115V
Amperage	13
Hz	60
Phase	Single
RPM	3450
Capacity	
Tanks	1
Air Storage Capacity	4 Gallons
Maximum Air Pressure	150 PSI
CFM	5.7 cfm @ 40 PSI
	4.5 cfm @ 90 PSI
Pressure Switch Settings	
Pressure Switch - ON	110 PSI
Pressure Switch - OFF	150 PSI
Compressor Pump	
Cylinders	1
Compression Stage	1
Lubrication	Splash
Oil Type	Compressor Oil SAE 30W (ISO 100)*
Crankcase	Aluminum
Bearings	Ball
Cylinder	Cast Iron
Valves	Stainless Steel Reed
Head	Aluminum
Filter	Canister
Dimensions	
Weight	88 Lbs.
Shipping Weight	92 Lbs.
Size (L X W X H)	23.6" X 22" X 20"
	*PROVIDED WITH UNIT

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COMPRESSOR DESCRIPTION





COMPRESSOR PARTS DESCRIPTION

KEY DESCRIPTION

1	Heavy Duty Power Cord		
2	Frame		
3	Compressor Pump		
4	Reset Switch		
5	Dipstick		
6	Hex Head Wheel Bolt		
7	Wheel Assembly		
8	Safety Relief Valve		
9	Air Storage Tank		
10	Rubber Foot		
11	Handle Latch		
12	Air Tank Drain		
13	Handle		
14	Air Outlet Fittings (2)		
15	Regulator Control Knob		
16	Tank Air Pressure Gauge		
17	Air Outlet Pressure Gauge		
18	Compressor Top Plate		
19	On-Off Switch		
20	Tank Warning Label		
21	Cooling System		
22	Motor Shroud		
23	3-Prong Grounding Plug		
24	Motor Label		
25	Air Filter		
26	Power Cord Retainer		

FUNCTION

Provides power to compressor motor Protects compressor components Compresses air Protects motor from overloads Used to check oil level in pump crankcase Secures wheels to compressor frame Large pneumatic tires allow easy rolling Releases excessive air pressure from tank Stores compressed air Provides stable footing, reduces vibration Secures handle position for easy transport Allows moisture to be drained from tank Extends for ease of transport Allows quick connection of air hoses Adjust discharge air pressure setting Indicates air pressure in storage tank Indicates air pressure at air outlet fittings Protects compressor components Turns compressor on and off Provides important safety information Cools compressor components Protects motor and compressor Safely grounds equipment when properly connected to a grounded power source. Provides important motor information Filters intake air to remove dust and debris Secures power cord for storage

SET UP

Before being used for the first time, your new compressor requires a simple set-up procedure that will help your unit deliver years of trouble-free service. Failure to follow all initial set-up instructions may result in serious damage to your compressor, property damage, or serious injury to operator and bystanders. <u>Do not start compressor until all set-up steps have been performed.</u>

- 1. Remove compressor and wheel assemblies from carton.
- Install wheels on wheel mounts at bottom of frame using hex head wheel bolts. Tighten bolts securely with 1-1/4" wrench.
- Unscrew shipping plug from crankcase. Add non-detergent oil to compressor and check oil level with dipstick. Oil level must be between "L" (Low) and "H" (High) marks on flat area of dipstick. Crankcase capacity is II.8 oz. (350 ml). Use chart below for correct viscosity:

Air Temperature
14 – 40 F
40 – 80 F

Viscosity SAE 20 (ISO 68) SAE 30 (ISO 100)







- Install dipstick in crankcase, and tighten securely before starting compressor. Make sure black seal is in place between dipstick and crankcase to prevent loss of oil during compressor operation or movement.
- Check power outlet circuit for correct capacity. Compressor requires 120V, Single Phase, 14 Amps, 60 Hz. Fuses or circuit breakers must be rated accordingly.
- 6. Use an extension cord with 3-prong grounding plug. Extension cord must be sized to prevent power loss and overheating of the motor:

Cord Length	Wire Gauge Size
Up to 25 ft.	12 ga.
Up to 100 ft.	10 ga.
Up to 150 ft.	8 ga.
Up to 250 ft.	6 ga.

- Pull handle out until locking hole in handle is aligned with locking pin on base of compressor. Lock handle in extended position with locking pin, and use handle to wheel compressor to desired area of operation.
- 8. Position compressor on a secure, stable surface, no more than 10 degrees off level.
- 9. Plug power cord in, and unscrew Air Tank Drain at the bottom of the air tank. Start compressor by moving On/Off lever up to the "ON" position. Allow compressor to run for 10 minutes without stopping. Watch for excessive vibration or unusual noise while compressor motor is running. If unit vibrates excessively or makes unusual noise, shut compressor off by moving On/Off lever to "OFF" position. Refer to trouble-shooting chart for corrective action. If no excessive vibration is noted, tighten the Air Tank Drain, allow unit to fill the air tanks, and proceed to step 10.
- 10. Check operation of Pressure Relief Valve by pulling release ring out to exhaust air pressure from tank. Release ring and allow pressure relief valve to reseat. Contact your dealer if Pressure Relief Valve does not operate properly.
- 11. Compressor is now ready for regular operation.









OPERATION

Operating Compressor

- 1. Move On/Off lever to the "OFF" position.
- 2. Plug the power cord into the power receptacle.
- 3. Move On/Off lever to the "ON" position.
- 4. Leave compressor in "ON" position while in use.
- To stop compressor, move On/Off lever to the "OFF" position. DO NOT stop compressor by unplugging power cord.
- Adjust outlet air pressure to desired setting by turning pressure regulator knob "C." Turn knob clockwise (+) to increase air pressure, counterclockwise (-) to decrease air pressure. Outlet air pressure is indicated by gauge (B). Tank pressure is indicated by gauge (A)
- Connect air hoses to quick-connect fittings (D) using a male quick-connect fitting. To connect air hose, push back outer ring on compressor fitting, insert male hose connector, and release ring. To release air hose, push hose fitting in, push back outer ring on compressor fitting, and pull male hose connector out.







High pressure air will escape when hose is disconnected. Keep face away from fittings to prevent dirt and debris from being blown into eyes. Always wear safety glasses with side shields to protect eyes when using compressor.

MAINTENANCE

Maintenance Schedule

Never perform maintenance on the compressor when it is in the "ON" position. Always place On/Off switch in "OFF" position, disconnect power cord from power source, drain air tanks, and allow unit to cool first. Performing service procedures on a compressor with pressurized tanks, or in the "ON" position, can result in serious injury.

MAINTENANCE CHART			
Interval	Maintenance Required		
	Check lubricant level and fill crankcase as needed		
Daily	Drain moisture from tanks daily. Open drain slowly and let air pressure bleed down gradually before opening drain valve completely. Use care when tipping compressor to drain tanks.		
	Perform a visual inspection of compressor. Make sure motor cover is in place, and all components are in good condition. Check compressor power cord and plug for damage. Don't use compressor if cord or plug is damaged.		
	Check for unusual noise or vibration, and have problem corrected. Contact your Grip-Rite dealer for service.		
Weekly	Open air filter cap and clean air filter. Replace filter if damaged or excessively dirty.		
	Check Pressure Relief Valve for proper operation. With tank pressurized, pull on Pressure Relief Valve ring. Air must exhaust when ring is pulled. Release ring - air must stop exhausting when ring is released.		
	Check for leaks, cracks, or corrosion on tank, fittings, and tubing. Discontinue use of equipment if leaks or other major problems are found, and repair unit before placing back into service.		
	Change compressor oil and air filter.		
	Clean/blow off compressor pump fins and motor.		
3 Months/	Check for air leaks at connections, and tighten fittings if necessary.		
300 Hours	Check tank for cracks, corrosion, leaks, or other damage. Never use a compressor with a damaged tank.		
	Check warning labels for legibility, and replace if necessary. Contact your Grip-Rite dealer for replacement labels.		

COMPRESSOR SCHEMATIC



TANK/FRAME



COMPRESSOR PARTS LIST - PUMP

REF NO.	DESCRIPTION	QTY.	PART#
1	CYLINDER HEAD		PACP408
2	ALLEN BOLT	4	PACP396
3	SPRING WASHER	10	PACP3
4	AIR FILTER	1	PACP409
5	FILTER ELEMENT	1	PACP410
6	CYLINDER HEAD GASKET	1	PACP9
7	IN. & EX. VALVE ASSEMBLY	1	PACP82
8	VALVE SEAT GASKET	1	PACP411
9	CYLINDER	1	PACP412
10	HEXAGON NUT	2	PACP20
11	SPRING WASHER	2	PACP21
12	DOUBLE HEAD SCREW	2	PACP22
13	CYLINDER GASKET	1	PACP14
14	PISTON RING SET	1	PACP413
15	PISTON SET	1	PACP414
16	ROD	1	PACP415
17	CRANKSHAFT & BALANCER	1	PACP416
18	MOTOR SET	1	PACP417
19	FRONT COVER GASKET	1	PACP418
20	FRONT COVER	1	PACP419
21	BOLT	4	PACP27
22	BOLT	1	PACP420
23	O-RING	1	PACP421
24	DIPSTICK SET	1	PACP24
25	DIPSTICK GASKET	1	PACP25
26	COOLING FAN	1	PACP422
27	SHROUD	1	PACP423
28	HEXAGON BOLT SET	4	PACP424
29	PLATE WASHER	4	PACP124
30	HEXAGON BOLT SET	4	PACP425
31	STARTING CAPACITOR	1	PACP426
32	RUNNING CAPACITOR	1	PACP427
33	CIRCUIT BREAKER	1	PACP67
34	EXHAUST ELBOW	1	PACP428

COMPRESSOR PARTS LIST - TANK/FRAME

REF NO.	DESCRIPTION	QTY.	PART#
35	AIR TANK	1	PACP429
36	TANK WHEEL	2	PACP430
37	TANK WHEEL BOLT	2	PACP431
38	RUBBER PAD	2	PACP432
39	PLATE WASHER	2	PACP45
40	HEXAGON BOLT	2	PACP42
41	DRAIN VALVE	1	PACP35
42	GRIP SET	1	PACP433
43	CHECK VALVE	1	PACP434
44	TUBE	1	PACP435
45	UNLOADING ELBOW	1	PACP48
46	UNLOADING TUBE	1	PACP436
47	PRESSURE SWITCH	1	PACP437
48	PRESSURE RELIEF VALVE	1	PACP438
49	EXHAUST ELBOW	1	PACP439
50	TUBE	1	PACP440
51	REGULATOR	1	PACP388
52	PRESSURE GAUGE	2	PACP441
53	ELBOW	1	PACP190
54	PLUG	2	PACP56
55	CABLE	1	PACP442
56	POWER CABLE	1	PACP336
57	PANEL	1	PACP443
58	HANDLE BUSHING	2	PACP444
59	BOLT	16	PACP396
60	BODY SEAT	1	PACP445
61	HEXAGON BOLT SET	2	PACP446
62	AUTO RELIEF VALVE	1	PACP447
63	STRAIN RELIEF BUSHING	1	PACP383
64	STRAIN RELIEF BUSHING	1	PACP63
65	STRAIN RELIEF BUSHING	1	PACP337
66	QUICK COUPLER	2	PACP448

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Compressor won't start	Circuit breaker tripped	Reset breaker
	Fuse blown in power supply branch circuit.	Replace fuse. Use Fusetron type "T" fuse only.
	Power turned off.	Turn power on
	Pressure release valve on motor/pressure switch has not unloaded pump head pressure.	Bleed line by moving switch to "OFF" position. Pull switch to "ON" position to restart unit.
	Defective cord or plug	Replace
	Motor thermal overload tripped	Turn compressor off, allow motor to cool, and reset overload button.
	Motor, capacitor, pressure switch, or check valve inoperable.	Contact authorized service dealer.
Compressor runs continuously;	Drain plug open	Close drain plug
doesn't shut on	Safety relief valve stuck open	Replace
	Air fitting on hose stuck open	Repair or replace
Safety relief valve pops open	Pressure switch misadjusted	Have authorized service dealer adjust pressure switch.
	Pressure switch inoperable	Have switch serviced by authorized service dealer.
Air leaks from safety relief valve	Valve stuck or inoperable	Pull on ring and release. Replace valve if leak continues.
Tool, sprayer, or other accessory doesn't work properly.	Air pressure too low or too high	Adjust regulator to provide pressure recommended by product manufacturer.
Unit runs continuously	Air usage greater than compressor output capacity	Check CFM requirements of air tool or accessory being used.
Noisy operation	Oil level low	Check for leaks, and add oil
	Internal wear or damage	Have unit serviced by authorized service dealer.
Air leaks at motor/pressure switch release valve while motor is running	Switch inoperable	Have authorized service dealer replace switch
Air leaks at motor/pressure switch release valve after motor stops.	Switch inoperable	Have authorized service dealer replace switch

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Air leaks at fittings	Fittings loose	Tighten fittings
Air leaks at compressor head	Head bolts loose	Tighten bolts securely
Air blows out of inlet filter	Damaged reed valve	Have unit serviced by authorized service dealer
Insufficient pressure at air tool or	Air intake filter dirty	Clean or replace filter
accessory	Air leaks	Check unit for leaks and correct as needed.
	Air hose too small or too long	Use large diameter air hose and larger capacity fittings.
	Reed valve worn or damaged	Have authorized service dealer replace.
Oil consumption excessive	Air intake filter dirty	Clean or replace filter
	Compressor positioned on uneven surface	Position compressor on level surface
	Oil leakage	Have authorized service dealer repair unit.
	Worn cylinder or piston rings.	Have authorized service dealer repair unit.
Crankcase oil appears milky when dipstick is checked	Water in oil from condensation	Change crankcase oil.
Moisture in discharge air	Excessive condensation in air tank	Drain tank more frequently. Tip unit when draining tank to drain all water.

STORAGE

- Open tank drain valve and allow all air pressure to escape.
- Drain all moisture out of tanks, and close drain valves.
- Disconnect air hose and wind hose carefully for storage
- Inspect compressor for wear, damage, or missing parts, and have repairs made promptly.
- Store unit in a dry, cool place.
- Storage in vehicles or trailers secure the compressor to keep it from tipping or being damaged by contact with other equipment. Make sure gauges, fittings, and knobs are clear of objects that could cause damage.
- Do not place heavy objects on top of compressor.



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PNEUMATIC TOOL/COMPRESSOR WARRANTY

Pneumatic nailers, staplers & compressors marketed under the *GRIP RITE*TM brand are warranted to be free from defects in workmanship & materials (except rubber o-rings, bumpers, seals, driver blades, dipsticks, & air filters) for a period of one year from the date of original purchase.

This warranty will not apply when:

- The original receipt (or copy of the original receipt), showing the original purchase date, is not provided with tools/compressors sent in for warranty repair
- The tool/compressor has been misused, abused or improperly maintained
- Alterations have been made to the original tool/compressor
- Repairs have been attempted/made to the original tool/compressor by any entity other than a proprietary *GRIP-RITE*® service/warranty center or authorized service/warranty center
- Non-GRIP-RITE TOOLS[™] / GRIP-RITE COMPRESSORS[™] parts have been used
- The tool has suffered any physical damage due to the use of non- GRIP-RITE ® approved fasteners*
- Repairs are required due to normal wear & tear
- The tool/compressor has been inadequately packaged leading to damage in-transit to the service/warranty center
 - *Approved fasteners include the following brands *GRIP-RITE FAS'NERS™, FAS'NERS UNLIMITED*™

IN NO EVENT SHALL **PRIMESOURCE[®]** BE LIABLE FOR ANY INDIRECT, ACCIDENTAL OR CONSEQUENTAL DAMAGE FROM THE SALE OR USE OF THESE PRODUCTS. THIS DISCLAIMER APPLIES BOTH DURING & AFTER THE TERM OF WARRANTY. THIS IS OUR WARRANTY & IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILTY AND FITNESS FOR A PARTICULAR PURPOSE (EXCEPT AS MAY BE OTHERWISE PROVIDED BY LAW). THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.

PNEUMATIC TOOL/COMPRESSOR SERVICE INFORMATION

Should any mechanical problems develop during the life of your equipment the following options are available for service and parts:

- Call (800) 676-7777 where you will be routed to the nearest *GRIP-RITE*
 distribution center and directed to the nearest authorized service/warranty center
- Logging on to our website at **www.grip-rite.com** where you will find a list of our authorized service centers
- Contact the GRIP-RITE

 Factory Warranty Center directly at Phone: (800) 207-9259 or
 Fax: (800) 207-9614
- In Canada Call (866) 512-1418

STEPS TO TAKE WHEN SHIPPING TOOLS

- Adequately package the product to avoid damage in-transit (in the case of pneumatic tools, the original blow mold plastic carrying case is considered adequate packaging)
- Provide the original/copy of receipt showing the original purchase date
- Insure your shipment with the shipping company. PRIMESOURCE® will not be responsible for any tool/compressor that is lost or damaged by the shipper on route to the PRIMESOURCE® service/warranty center



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